

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Entitled : MAGNETIC SENSOR FOR DETERMINING THE
LOCATION OF CONTROLLED MAGNETIC LEAKAGES

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ABSTRACT OF THE DISCLOSURE

The invention relates to a magnetic sensor for determining the location of a moving object (2) along an axis of displacement (T), the sensor including:

- an open magnetic circuit (3) that delimits at least one gap (8) and includes means (4) for creating a magnetic flux,
- at least one first measuring cell (11) fixedly mounted in the magnetic circuit (3) and capable of measuring the value of the magnetic flux,
- means for processing the output signal delivered by the measuring cell (11) in order to determine the linear location of the moving object along the displacement axis.

According to the invention:

- the magnetic circuit (3) also includes at least one pole piece (5) associated with means for creating a magnetic flux,
- the measurement cell (11) is mounted near an extreme point of displacement so as to measure the magnetic flux delivered by the creating means (4) minus the magnetic leakage flux.

(Figure to be published: **Fig. 1**)